HIV INCIDENCE SURVEILLANCE

HIV Incidence Surveillance Fact Sheet

NJ Health New Jersey Department of Health

1. **Why report incidence of HIV infections?**

Answer: HIV diagnoses have served as a marker for new HIV infections. However, a new HIV diagnosis is not necessarily a new infection. The Centers for Disease Control and Prevention estimates that of the 1.1 million Americans living with HIV; one in five remains undiagnosed. In New Jersey, nearly two-fifths of new HIV diagnoses occur late in the course of disease progression. Late testers are either simultaneously diagnosed with HIV and AIDS or progress to AIDS within one year of the initial HIV diagnosis. HIV incidence data allows the New Jersey Division of HIV, STD, and TB Services to better allocate resources, plan, implement, and evaluate HIV prevention programs more effectively.

2. **How does HIV incidence surveillance work with routine HIV/AIDS case surveillance?**

Answer: HIV incidence surveillance is an extension of the existing population-based HIV/AIDS Reporting System (eHARS). The current adult case report form is used to collect all information necessary to estimate HIV incidence thus fully integrating HIV incidence surveillance into routine HIV/AIDS surveillance.

3. **What information is needed to estimate the incidence of new HIV infections?**

HIV incidence surveillance requires remnant serum from persons newly reported with a positive HIV diagnostic test along with demographic data and information about HIV testing behaviors. Testing history data include frequency of testing and use of antiretroviral medications and are considered part of routine HIV surveillance.

4. **Are we required to collect HIV incidence case information?**

Answer: A rule, N.J.A.C. 8:57-2.10, was added to the HIV reporting regulations in April 2009. The rule requires testing laboratories to submit remnant specimens from tests indicative of HIV to the New Jersey Public Health, Agricultural and Environmental Laboratories (PHEAL) for further testing which could include STARHS.

5. **How are recent infections identified within a group?**

Answer: The serologic testing algorithm for recent HIV seroconversion (STARHS) classifies HIV infections as likely or not likely to be recent (i.e., occurring within 5-months of testing). STARHS is performed on leftover serum from confirmed HIV+ specimens using the BED HIV-1 Capture EIA. The BED measures the proportion of HIV antibodies among all IgG antibodies that increase as the body responds to infection. If the HIV antibody level is below the detection threshold, the infection is likely to be recent. The assay is only used for surveillance. Results cannot be returned to patients or providers, and the results cannot be used for clinical or diagnostic purposes.

6. **Who is counted in HIV incidence surveillance?**

Answer: All newly diagnosed HIV cases reported to the New Jersey HIV/AIDS Reporting System with HIV (not AIDS) using the adult case report form (ages ≥13) are eligible for STARHS.

7. **How is HIV incidence calculated?**

Answer: It is not possible to test every person for HIV. Using the testing history information, HIV incidence is estimated from a sample of people for whom STARHS results are available who share comparable demographic and risk factors as those tested. Demographics and risks are related to likelihood of testing; HIV testing history is related to the chance that a person with HIV will be diagnosed (persons testing are more likely to be diagnosed).

8. **Where is HIV incidence surveillance being implemented?**

Answer: New Jersey is one of 25 states and local areas to receive funding from the Centers for Disease Control and Prevention and contribute data to produce annual national HIV incidence estimates for years 2006 to 2010. New Jersey has also produced a Statewide estimate for years 2008 to 2010.

For more information, please contact Charlotte Sadashige (609) 984-5940.

Centers for Disease Control and Prevention. Estimated HIV Incidence in the United States, 2007-2010. HIV Surveillance Supplemental Report 2012; 17(No.4). http://www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental. Published December 2012.